



## Junk Science <sup>[1]</sup>

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Junk science is the anti-thesis of fringe science. It is a type of science often practiced when politics and business become involved in research. Generally, it involves the cynical cherry picking of data and results to suit a particular agenda.

For example, an oil company trying to prove that one of its refineries was not polluting the environment might pay scientists to choose 'friendly' research areas. A smoking company might pick research showing that cigarettes do not cause any lasting harm.

Equally, the term 'Junk Science <sup>[3]</sup>' is often used to denigrate real science. Businesses use targeted advertising campaigns to accuse rival researchers of producing junk science, whilst promoting their own as sound science.

In this respect, it is often similar to pseudo-science <sup>[4]</sup>, where poorly designed or bad science becomes masqueraded as truth.

Here are some examples of Junk Science:

- **Climate Change:** Unfortunately, there is a lot of poor science upon both sides of this debate, and too many people with little knowledge of the scientific protocols comment upon the evidence. The experts performing real science are drowned out. Green and Anti-Green are big businesses and gains votes for sound bite politicians.
- **Health scares:** This is an extremely cynical way of making money. Many of the so-called 'findings' of research are paid for by companies with a conflicting interest. Most such research is accompanied by a press release, which is circulated to the media. This works along saturation principle; if enough people see it in the press, it will become accepted as truth.
- Any research announced in the **media** that uses 'might,' 'possibly,' and 'could,' is often speculation rather than scientific fact. Junk research often takes a correlation <sup>[5]</sup> to mean a link, which is not always the case.

Avoiding junk science is a knack, but the scientific method <sup>[6]</sup> should be apparent, and any deviations from protocol accounted for.

Try not to believe anything that you have not read in a strong journal <sup>[7]</sup>, rather than believing the mass media. Before you believe anything, apply the same criteria to the research as if you were performing a literature review <sup>[8]</sup>.

Finally, if you have any doubt, always look at who sponsored the research. If you sense a conflict of interests, avoid it.

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